

# TOGGLE

THE MICROCOMPUTER TURN (ON)

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## UPDATE

### Word Processing

In *Inserting a Non-breaking Hyphen* Sharon Parq Associates has provided another word processing tip on a little covered subject. Simple tips like this can make your word processing task easier.

In *Streamline Office 2007 with Screen Tips and Live Preview* the author states: "One of Microsoft's stated objectives for the changes in Office 2007 was to make users able to complete work tasks more quickly. Another goal was to help them create more professional-looking products. To meet these objectives, the ScreenTips feature was enhanced and the Live Preview feature was introduced. Understanding and using both of these tools can result in user efficiency and improved quality of output from Word, Excel, and PowerPoint 2007."

### Spreadsheet

In *Indenting Cell Contents* Sharon Parq Associates shows another feature of Microsoft's Spreadsheet program EXCEL.

### Communications

In *Making Wireless Internet Faster* author Vinnie LaBash talks about the good and bad features of wireless networks and how you can overcome some of the weaknesses.

In *Hacking 101* the author talks about how hackers get at your computer, and lists some of the tools they use. Knowing about these may enable to better protect yourself by selecting software that detects and protects against these threats.

### General Interest

In *Copy Changed Files* the author makes you aware of a free program to copy only those files that have been changed. Worth a look.

### Operating System

In *Solutio Anti-Frustration Software Improves Boot Time* Ira Whilsker notes that defragging the hard drive and cleaning

up the startup programs have been the traditional ways to speed up your computer. While these two methods are well accepted and proven to speed up the boot process, a new concept in utilities was recently released that goes an extra step in controlling the boot process. Read all about it.

### Hardware

In *Security - Recycling & Inheriting PCs* the author highlights some ways to stay secure whether you're inheriting a used system or passing your old PC to another user.

In *Should You Defrag A Flash Drive?* the author points out that a flash drive does not have the same physical features as a hard drive and should never be defragged since it may be damaged.

In *Lurking Dangers of Larger Hard Drives* the author points out that with large drives you tend to keep files that you used to discard. Antimalware programs take longer to run. Large files are more readily fragmented and backups need more storage capacity. You may have to modify the way you operate to avoid some of these negatives.

In *Troubleshoot Your Digital Camera* the author notes that if you have problems you should doublecheck the transfer procedures for your camera because all cameras don't use the same techniques. It may be simpler to use a card reader to transfer photos.

In *Who Invented the "CD"* the author gives us a brief history of James T. Russell the man who developed the CD-Rom among other inventions throughout his life.

## WORD PROCESSING NOTES & TIPS

### Inserting a Non-Breaking Hyphen

by Sharon Parq Associates, Inc.

When Microsoft Word calculates line length and wraps text to the next line, it tries to wrap (or break) the line at a space or a hyphen--a dash. Sometimes, however, you may not want Word to break a line at a dash. For instance, dashes are used in telephone numbers, and you might not want a line to break in the middle of a telephone number.

The answer is to use non-breaking hyphens instead of regular dashes when you don't want Word to break a line at the hyphen. To do this, hold down the CTRL and SHIFT keys as you type the dash (this is the same as typing CTRL and an underscore). Word will then not break the line at that point.

You can also insert a non-breaking hyphen by following these steps:

1. Choose Symbol from the Insert menu or, in Word 2007, display the Insert tab of the ribbon, click Symbol in the Symbols group, and finally click More Symbols. This displays the Insert Symbol dialog box.

2. Click on the Special Characters tab.

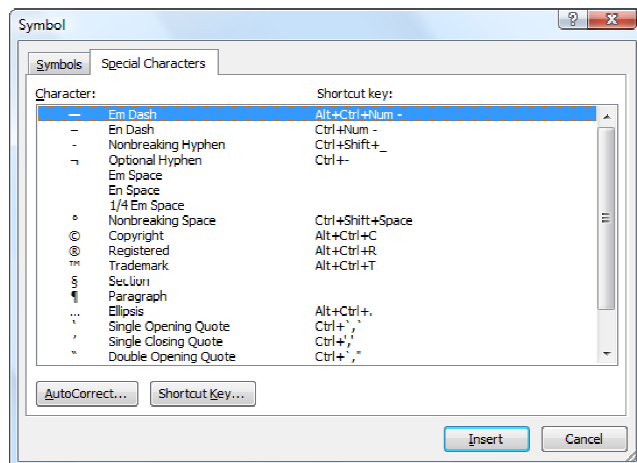
The Special Characters tab of the Symbol dialog box.

3. Highlight the Nonbreaking Hyphen character.

4. Click on Insert.

5. Close the dialog box by clicking on Cancel.

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## Streamline Office 2007 with Screen Tips and Live Preview

by Nancy DeMarte, <ndemarte@verizon.net>  
Sarasota Personal Computer Users Group, Inc.

One of Microsoft's stated objectives for the changes in Office 2007 was to make users able to complete work tasks more quickly. Another goal was to help them create more professional-looking products. To meet these objectives, the ScreenTips feature was enhanced and the Live Preview feature was introduced. Understanding and using both of these tools can result in user efficiency and improved quality of output from Word, Excel, and PowerPoint 2007.

Office 2003 and most previous versions included ScreenTips, which showed the name of a command button when you hovered the mouse pointer over it. Word 2007 offers not only standard ScreenTips (the name of a button), but also enhanced tips, such as a definition of the command, the key-stroke combination to access it, and more information, such as when and how to use it. This enhancement provides a helpful interactive, on-the-job glossary of commands, saving the user the inconvenience of looking up the function of an unfamiliar button in the Help menu.

Take, for example, the Format Painter button, found in the Clipboard group on the Home tab in Word 2007. Merely moving the mouse pointer over this button reveals the following enhanced ScreenTip: Format Painter (Ctrl+Shift+C) - Copy formatting from one place and apply it to another. Double-click this button to apply the same formatting to multiple places in the document. Or consider the Watermark command, a new tool of Word 2007 found in the Page Background group on the Page Layout tab. When the mouse pointer is hovered over this command, you see a thumbnail of a page with a watermark, along with this text: Insert ghosted text behind the content on the page. This is often used to indicate that a document is to be treated specially, such as Confidential or Urgent. This tight annotation gives not only the name of the command, but a definition and examples of its use.

Office 2007 users have the option to view just the standard ScreenTips or both the standard and enhanced tips. To make your choice in Word, click the round Office button in the top left of the Word window - Word Options - Popular - Top Options for Working with Word. Here select Show (or don't show) feature descriptions in ScreenTips or turn off the ScreenTips altogether.

Another time saver as well as a tool for making documents or presentations look professional is a new feature called Live Preview, which lets you preview changes instantly before committing to them. Let's say you have drafted a document and are considering changing the font of a certain section. First select (highlight) a group of text. Then click the Font arrow next to the current font name on the Home tab to reveal

the menu of available fonts. Position the mouse pointer over any font name on the list, and watch the selected group of text change to this font immediately so you can see what it would look like if you clicked the mouse button. Once you find the font you like, make your choice by clicking its name.

Live Preview works in Word, Excel, and PowerPoint with buttons where there are options, such as font styles, colors, and sizes; as well as bulleting and numbering styles. The new Word feature, Quick Styles, which are preset headings and other document parts, coordinated by color and font style, shows the power of Live Preview. You can see how a document would look in a new style by merely positioning your cursor anywhere inside a paragraph (no highlighting needed) and moving your mouse pointer over one of the style sets on the Home tab. If you like the look, click the style. If you wish to cancel, press the ESC (Escape) key. In Excel, Live Preview works with fonts, including sizes and colors, as well as fill colors, cell styles, and Format as Table styles. In PowerPoint, use Live Preview on the font options in Word plus themes and transitions.

If you find you don't like the instantaneous changes that appear when Live Preview is in effect, you can turn off this feature. Click the Office button - Word Options - Popular, and remove the checkmark from the Enable Live Preview box.

Enhanced ScreenTips gives you an easy way to learn or remind yourself of commands. LivePreview helps you quickly create products like a professional page designer. These upgrades in Office 2007 help make it a valuable suite of programs, but only if you use them.

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## SPREADSHEET NOTES & TIPS

### Indenting Cell Contents

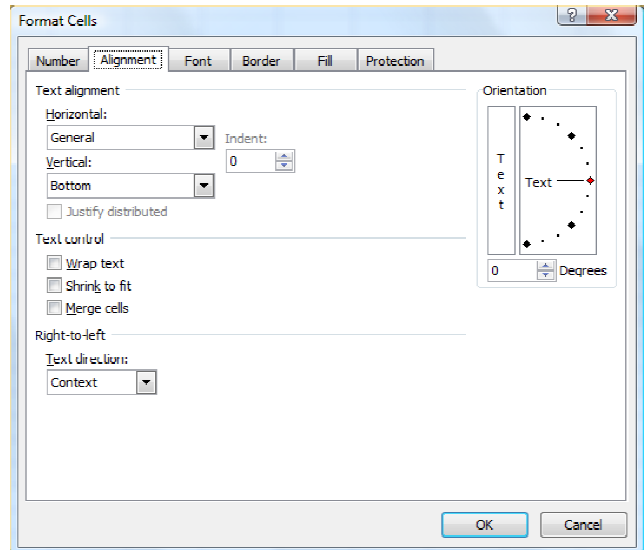
by Sharon Parq Associates, Inc.

Microsoft Excel allows you to format the contents of a cell in a myriad of ways. One of the formatting options you can apply is to indent the contents of a cell by a certain amount. This is similar to indenting done in a word processor, such as Microsoft Word, except that the indenting is specified in a number of characters, not in a linear distance such as inches or points.

To set the indent to be used in a cell, follow these steps:

1. Select the cells you want to format.
  2. Display the Format Cells dialog box. (In Excel 2007 display the Home tab of the ribbon and click the small icon at the lower-right corner of the Number group. In older versions of Excel choose Cells from the Format menu.)
  3. Make sure the Alignment tab is selected.
- The Alignment tab of the Format Cells dialog box.
4. In the Horizontal drop-down list, choose Left (Indent). If you are using Excel 2002 or a later version, you can also choose Right (Indent).
  5. Using the Indent control, specify the number of characters by which the cell contents should be indented from either the left or right side of the cell. You can pick any whole number between 0 and 15.
  6. Click on OK.

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## COMMUNICATIONS NOTES & TIPS

### Making Wireless Internet Faster

by Vinny La Bash, <vlabash@comcast.net> Sarasota  
Personal Computer Users Group, Inc.

A wireless network works on the same principle as any other communications network. It is a collection of various devices connected to each other in a way that allows data to flow unimpeded, and unchanged from one device to another. The main difference is that in a wireless network, there is no physical connection between or among the different devices. The main advantage of a wireless network is portability within the range of the network. The main drawback is that the quality of the communications signal can vary greatly within the range of the network sometimes resulting in disruption of communications services.

Some Basics: For simplicity, our discussion will be restricted to internet based home wireless networks. There is no need to delve into the complications of corporate, military or other kinds of complex communications networks. The basic equipment required to set up a home network is:

- An internet service provider (ISP) that provides access to the internet.
- A modem that provides access to the ISP.
- A router that broadcasts the wireless signal.
- Devices such as laptops, desktops and printers that receive the signal through a network interface card (NIC).

There are several standards for wireless networks developed by the group that regulates the industry's standards, The Institute of Electrical and Electronics Engineers (IEEE). Amongst these standards are those that set criteria for data transmission speeds. Don't buy, or accept from your ISP, a wireless router before determining how fast it transmits data. Manufacturers are required to display the standard in their product specifications. Either get the information from your ISP or look for these specifications on the box.

Regardless of your experience level with wireless networks, don't consider anything less than standard 802.11g. Most g devices are not only inexpensive, but far superior to the older 802.11 a or b wireless routers. Besides being competitively priced, g routers have far superior network security. 802.11b routers offer only Wired Equivalent Privacy security (WEP). 802.11g routers have Wi-Fi Protected Access (WPA), which overcomes the weaknesses of WEP.

How large are the files you upload and download from the internet? If you normally do not move large files in either

direction standard 802.11g will do fine, and it has the additional advantage of being cheap. If you are moving large files, then go for a Faster, Super G router.

The most common problem with home wireless networks is either loss of signal or a signal that is too weak to allow reliable connections. One way to solve this is by boosting the signal. If you're willing to spend a few bucks you can plug a Hawking HAI15SC Hi-Gain Wireless Corner Antenna into your router and enhance signal strength from the standard 2dBi to up to 15dBi. Before you run out and buy this enhancement be sure that your router has a removable antenna. Check your router's manual or contact the manufacturer for information.

If your router doesn't have a removable antenna there is an alternate, but higher priced method to increase signal strength. A Wireless-G Range Expander also does the job. It has a great advantage that it does not have to be physically connected to any part of your network. All that's necessary is that it be in range of the router. The device works similar to a repeater in cellular networks. It performs well in multi-story homes, back yards, lanais, and other outdoor venues.

The Expander is compatible with the Linksys Routers. It also works with Wireless-G and Wireless-B clients.

Everyone who uses or who is contemplating using a wireless network is rightly concerned with performance. But don't let performance issues blind you to proper security. The fastest wireless network on the planet won't do you much good if a hacker is robbing you at the speed of light.

Wireless networks have become very common for individuals and organizations. A new PC is very likely to have wireless access pre-installed. Hackers have become adept at breaking into wireless networks, and you should not overlook this danger while enhancing performance.

At a minimum you should change any default passwords and select a method that will securely encrypt your data should your protection methods be compromised. Your local PC user group is a great resource for giving you this kind of assistance. Don't overlook this abundant source of expertise.

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## Hacking 101

By Marjie Tucker, Editor, Macon Computer User Group,  
North Carolina  
found in the Newsletter of the Hartford User Group  
Exchange May, 2010  
www.mcug.org mcug (at) dnet.net

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We are being bombarded with warnings about securing our data and the entry to our computers. Do you ever wonder what the big fuss is all about? How can a hacker possibly get into your data? And, what would he be looking for? Let's spend some time answering those questions.

### How Does A Hacker Get In To Your Computer?

When you give your computer access to the Internet, you need an IP (Internet Protocol) address. The IP addresses that we are currently using have 4 octets with periods between them. They will be something like 192.168.100.1. When you access the Internet, that address is read by the router, modem, whatever that links you to your Internet Service Provider. Then it is read by the routers that route all the data through the Internet. This address makes it possible for you to send data, such as e-mail or requests for web pages. And, in turn, that same address is used to direct incoming e-mail and web pages into your computer. There are several websites and programs available that will translate these IP addresses into the name of the company that purchased them. In many cases, like our residential usages, the company name will be the ISP.

For commercial use, it will be the name of the company that rents the block of IP addresses. Hackers use this IP address information to find their targets much like we use a physical address to find a house or office.

Once a hacker finds out your IP address it's relatively simple to send your computer a Trojan horse program, spyware, or a virus that will open a port that you usually don't use. Once that port has been opened, he can freely enter into your operating system and browse around just like he was there in person. He would look for programs that store valuable data like social security numbers and credit card account numbers. (Do you have that information entered into your Quicken or Money program?)

He would look through your My Documents folder for password lists and search your Internet Explorer favorites for financial sites where you saved the username and password. And, before he leaves he usually plants another Trojan horse that will give him the ability to take control of your computer in the future.

### Commercial Websites

The most common way to hack into a company's website through the Internet is by using a Denial of Service attack. These DoS attacks use multiple computers to overload a website with bogus requests for information.

The hacker usually creates a Trojan horse program that he sends into the computers of unsuspecting people (remember that program that was left behind when your computer was invaded above?) The message that he creates usually contains a header saying that it comes from an IP address that doesn't exist.

When he is ready to attack, he calls up all the computers that he infected with his Trojan horse and tells them to contact a specific IP address. Those computers follow his instructions and send his preprogrammed message to that website. Servers that control websites always check to verify that IP addresses requesting information or webpage downloads are legitimate addresses. When a server is hit by a bombardment of these false address requests, it tries to track down every one of the fake addresses. Before long the server becomes overwhelmed by the fruitless process and crashes. When it crashes, the website will vanish and the hacker will be given access to a prompt for the server. He can then use Linux or DOS commands to request and view information on that server other servers.

### How About Wireless?

Let's put this hacker into an airport where hundreds of people are sharing a wireless network. It's like leaving a child alone in a candy store. In this case the airport's wireless system usually provides the IP addresses through DHCP and he can easily look at the list of addresses that have been supplied. He can test each of the addresses for available ports and it's quick work to access the most vulnerable. The same principles apply in hotels and restaurants that provide wireless Internet access. If you have a wireless network in your home, our hacker can drive down your street using a laptop or PDA to search for wireless networks. This process is called Wardriving. If he finds one that has not been secured at all, he doesn't even have a challenge. If you have added a password, he simply has to crack the password.

### What Tools Do They Use?

It's very easy for a potential hacker to find the tools of his trade. There are many websites that offer program tools and tutorials for using them. Here are some of the popular:

**Anonymizers and Remailers** - Anonymizers are online services that eliminate the trail of information that is left behind. These sites use anonymous proxies that a hacker can use to access computers and servers without leaving his IP address on any log. Remailers strip the header off a message and replace it with a meaningless header that can't be traced.

**Command.com** - When this command is typed into a server it will basically give you administrative rights. You can then see all the folders and files. It's also very easy for the hacker to create a new administrative account that he can re-use in the future.

**Password Crackers** - These programs try random passwords at lightening speeds. They are usually very successful.

**Key Loggers** - Hackers frequently install these on computers, especially public PCs. The programs actually record every stroke that you make. Hence, when you type in a username and password, it has been captured.

**Port Knocking** - This is a method of externally opening ports on a firewall by mimicking the process you normally use to add a port to your firewall.

**Wireshark** - This popular program captures and analyzes the data on a network. It's used by hackers to find information they want and it's also used by network administrators to manage networks.

**Aircrack** - This program is used to crack wireless WEP and WPA passwords.

**Metasploit Framework** - This is a tool that can be used by hackers to search the Internet for sites that have dubious code. These are the sites that are the easiest to

**hack** - especially when this program does the searching for you.

Networks identifying the types of data and the internal addresses of this data. It's a valuable tool for administrators, but can save a great deal of time for a hacker.

**NMAP** - This is a port scanner. Since a hacker knows that he needs to use a port to access your computer or network, he can use this program to see which ports you have open.

**NetStumbler** - This program finds any wireless networks that are in range.

**Wardrivers** drive through residential neighborhoods using

**Netstumbler** to search for available wireless networks.

**Kismet** - This program takes Netstumbler one step further. It searches for wireless networks that are not broadcasting their SSID.

**NSLookup** - If you type a domain name into this program, it will give you the company's IP address/

**Traceroute** - This is a very valuable troubleshooting tool for

technicians. It will trace a packet on its route through the Internet. It shows every IP address it visits along the way.

**Snort** - This is an open-source intrusion detection system. It shows traffic analysis and packet logging on networks.

**TCPdump** - This is the most widely used network sniffer/analyzer for UNIX networks.

**Net Cat** - This has been called the Swiss army program for hackers. It performs many sniffing and cracking tasks.

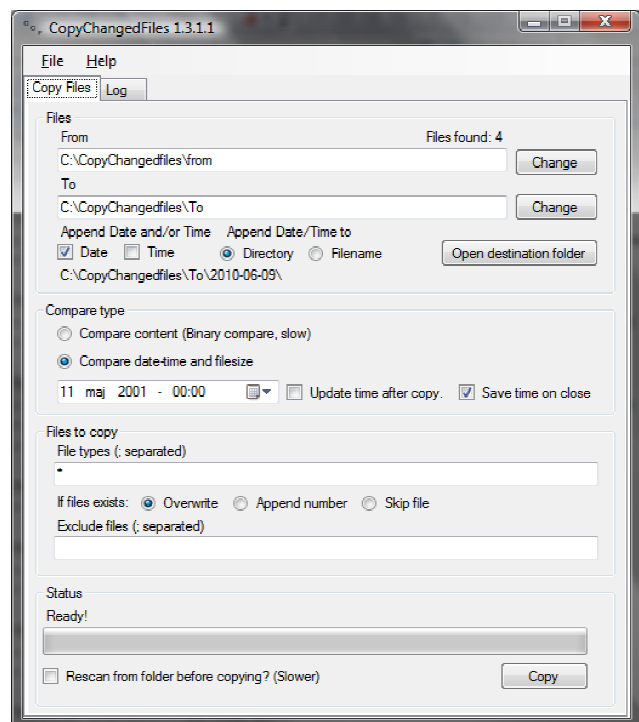
This was really just some of the basics. But, if we know why security is so important, we may remember to take the right precautions. Hope your web surfing stays secure.

## GENERAL INTEREST

### Copy Only Changed Files

Durham Personal Computer Users Club

This screen shot is pretty self-explanatory. The purpose is to check for, and copy, only those files that have changed, based on a choice of date and/or time or by binary comparison. Copying from one directory tree to another is possible, as is appending and overwriting. "Copy to" folders and files may be assigned a date appendage. For those who take lots of photos, or those who must keep reliable back-ups of files scattered all over the place, this is a real time saver and its a free program. Go to <http://copychangedfiles.com/>



## OPERATING SYSTEM NOTES & TIPS

### Soluto Anti-Frustration Software Improves Boot Time

by Ira Wilsker

#### WEBSITES:

<http://www.soluto.com>

<http://blog.soluto.com>

<http://www.soluto.com/About/Media-Kit>

In several past columns I have written about utilities that can speed up the computer boot process. As cluttered as it was, my old XP machine could take up to five minutes to boot; my newer Windows 7-64 machine boots in under two minutes, considering the multilayered security that is installed on it. Traditionally, the ways of speeding the boot process on a PC was to defrag the hard drive, and clean up the programs in the startup that load when the computer is first turned on. When someone tells me that his computer takes forever to boot, my typical responses are “is your hard drive defragged” (defragmented), and “how many little icons do you have on your task bar adjacent to your clock?”. There are several excellent startup managers available (including Windows ‘msconfig’ feature), both independent utilities and components of utility suites, that can easily control what programs load at boot. Simply unchecking unwanted and unnecessary programs at boot is an accepted way of improving boot time. Likewise, there are several excellent defragmentation utilities available, including the simple one built into Windows, that can do a credible job; by defragging the hard drive, it does not have to work as hard when reading files and data, thus providing some improvement in load times.

While these two methods are well accepted and proven to speed up the boot process, a new concept in utilities was recently released that goes an extra step in controlling the boot process using a software “genome” and community experiences to determine what is loading in the computer at boot, how long each item takes to load, displays what is required or optional to load at boot, and gives the user control of what loads and when it loads during the boot process. Wanted, but low priority items, can be set to load after the computer has fully booted, and is sitting idle, thus not degrading the boot process. Unwanted items can be stopped from automatically loading, but set to load upon demand. The process may sound complex, but it is very simple with the information provided by this new utility, “Soluto Anti-Frustration Software (beta)”.

Available as a free download from [www.soluto.com](http://www.soluto.com), this software is a “beta” or pre-release version, which by definition, is not a highly refined final “release” version. My 18 month old “new” computer booted very quickly when new,

but now that I have a lot of security software and other utilities loading at boot, it was taking between a minute and a half, and two minutes to boot. After I downloaded and installed Soluto, and rebooted the computer such that Soluto could measure and analyze my boot process, my first modification of my boot process improved my boot time by almost 25%! Subsequent refinements of my boot process with Soluto, and input from the “community” have helped me to shave off about another 10% of my boot time.

After being installed, Soluto monitors what loads at each boot. During the boot process, the bottom left corner of the desktop turns up like the corner of a page and displays each item as it is loading, while displaying the elapsed time to boot the computer. Information is gathered during the boot process, and added to what has been gathered at previous boots, to provide the data that is analyzed by the program. The data that is collected is anonymously added to the Soluto PC Genome, where the community can input recommendations that will assist the user in determining what can be controlled at boot. According to Soluto, “ This anonymous technical data is gathered and sent to Soluto’s PC Genome, a one of a kind knowledge base containing statistical insights about PC software and hardware behavior, as well as remedies to alleviate PC usage frustrations. By putting this information into the light, the PC Genome will help consumers and vendors alike. Soluto employs another set of innovative algorithms to determine which remedies will have a positive impact on each Soluto user’s unique PC system. These remedies are then shared with other relevant Soluto users.” Soluto has found that by pausing when specific items load in the boot process, and reconfiguring some of the applications, boot time and overall behavior of the computer can improve dramatically. Soluto can also determine those programs that degrade computer performance, and provide the “frustrated” user with possible solutions to reduce or eliminate the source of frustration.

Soluto places a small icon on the task bar that looks somewhat like a smiley-face, and opens displaying the Soluto functions. By opening Soluto anytime after the computer has booted, the first screen called the “Boot Page” displays “Potentially Removable” items in an orange font, along with the boot time and sequence for each. By moving the cursor over any of the “Potentially Removable” items, a brief description of the software is displayed (if it is in the Genome). By moving over the “more” on the display, a recommendation may be shown, as well as a pie chart of what other users of that software have done. The user is given the option to “Pause” or “Delay” the item in subsequent boots. “Pause” prevents the item from being loaded at boot, but the program can still be loaded upon demand; “Delay” postpones the selected program from automatically loading until the computer is otherwise idle, which means that it will not slow the initial boot process. Since Soluto (beta) has just been released, the genome is still in its infancy, and does not yet contain a comprehensive database of software. The user can easily

click on the pencil icon “edit” and open a Wiki which enables the user to “fill in the blanks” about an item, which will then be verified, and added to the Genome. As more users complete the Wiki, the Genome database will become more complete. As the Genome improves through this community input, all of the users can benefit by the dissemination of the information.

The grey section of the main screen “Boot Page” in Solutio displays the “Required -annot be removed” items that load at boot, in their boot sequence and with their boot time displayed. While most of the items shown are valid Windows components, with an explanation of what each does along with its boot time, some of the items are non-Microsoft files, and lack detailed descriptions. When I first used Solutio, the components of my MagicJack VoIP service (internet based telephone service) were listed as “Required”, and could not be paused or delayed; I opened the Wiki and explained what they were, and then commented that I thought that these particular components should be moved to the “Potentially removable” section where their boot process could be better managed. As the Genome grows and improves, items like this will be better sorted into the appropriate category.

The blue section on the “Boot Page” shows the items that were “Paused” or “Delayed” at boot, and how much time was saved by not loading those items. Clicking on any blue item gives the user the choice of changing the status to boot, “Pause” or “Delay”, which will be implemented the next time the computer is booted.

An interesting choice on the Solutio icon is “My PC just frustrated me”, which opens the Solutio window, and analyzes the running processes, and tries to determine which program is causing the slowdown. Any information found during the “frustration” analysis is anonymously added to the Genome where it will be comingled with other data and potential solutions may be determined. If a solution to the “frustration” exists, it looks like it will be displayed to the user. When I clicked on the “Frustration” menu item, Solutio identified the beta version of a new security product that I am testing as the potential source of “frustration” but could not yet show any remedy to my “frustration”.

While Solutio is still in the “beta” stage of development, I found it a very useful and worthwhile utility to improve PC performance, particularly in the boot process, and for resolving potential “frustrations”. Users should give Solutio Anti-Frustration Software a try. In my limited experience with it, I would give it my recommendation, as well as a rating of “two thumbs up”.

## HARDWARE NOTES & TIPS

### Security - Recycling & Inheriting PCs

by Stephen J. Bigelow

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<[www.SmartComputing.com/groups](http://www.SmartComputing.com/groups)>

Personal computers rarely have a single owner. A PC is often handed down to family members as newer equipment enters the household. Similarly, used equipment may be donated to charitable concerns, or corporations may sell older systems as new desktops displace their existing platforms. But the charity and goodwill associated with used equipment carries potential security risks. Systems infected with viruses or other malware, unpatched vulnerabilities, and sensitive data remaining on the system are just a few problems that can compromise the security of a used system. Whether you’re inheriting a used system or passing your old PC to another user, this article highlights some ways to stay secure.

#### Giving Away A Computer

The brand-new shiny PC you ordered finally arrived, and you’re thinking about what to do with your existing system. Before breaking down that old system and boxing it in a corner or giving it away to a local organization, it’s important to consider all of the valuable or sensitive data that might be on it.

Before donating or giving away your old computer, use a file shredding utility to ensure that any data deleted from your PC is unrecoverable.

First, if you have applications on your existing system that you plan to run on the new system, such as Intuit Quicken or Microsoft Office, be sure to make a backup copy of your data files from the old system. It’s a simple matter to copy files onto a USB flash drive or external hard drive. Take the time to decide which applications need to be installed on the new system (if they’re not on the new system already). Locate the installation media for those applications and pay particular attention to the license numbers or registration keys; you’ll need these to activate the applications once they’re installed on the new PC. The product key is usually printed on the installation disc or included in the software box or with the users manual.

At this point, you can uninstall the applications from the old PC and make sure that any data files associated with that application are deleted. This may seem like a bit of work, but most software licenses only cover installation on one machine, so it may be illegal to install the software on your new system without removing it from the old system. Install the applications on the new PC and copy over the data files at your leisure.

Next, you don’t need the new owner of your used system seeing where you’ve been browsing or checking into your

favorite bookmarks, so take the time to delete all of the temporary files and folders for your browser. Don't forget to empty the Recycle Bin because any sensitive files left in the Recycle Bin can be opened or restored.

Once you've removed applications, deleted data, cleared temporary content, and emptied the Recycle Bin, use a file shredding tool such as File Shredder (free; [www.files shredder.org](http://www.files shredder.org)) to thoroughly overwrite all of the hard drive space that you just cleared. Use a high-security algorithm to prevent any chance of the next user recovering any sensitive data with forensic data recovery tools. You should then be able to pass that old system to its new owner with a feeling of security.

### Accepting A Used Computer

If you inherited a used computer, use anti-malware software to perform a complete system scan before installing sensitive applications and data.

It's great to get another PC. But even if the system is coming from a friend or relative, you still don't know where that system has been. Before installing new applications or using the system at all, start an anti-malware program (if there isn't one already installed), update the anti-malware signatures to their latest version, and then perform a full scan of every drive on the system. It doesn't matter how long it takes. If there is any malware on the system, it's best to find and eradicate it before you trust sensitive data on the computer. Products such as Malwarebytes Anti-Malware ([www.malwarebytes.org](http://www.malwarebytes.org)) can do the job free. If you find one or more infections, be sure to remove the infected items and repeat the scan until the system checks completely clean.

Remember that the system should have a full security suite installed, particularly if you intend to run the system with a full-time broadband Internet connection. There are numerous vendors, each providing well-tested products, but the security suite should include a firewall, anti-malware, and intrusion detection/prevention.

Once you confirm that the hand-me-down system is malware-free, run Windows Update (<http://www.update.microsoft.com>). This will examine the operating system and other installed Microsoft applications, such as Office, and identify any updates, service packs, security patches, and other content that will plug potential exploits and bring the system to a current security posture.

Your last step as the recipient of a used computer should be to perform a complete backup of the system to a DVD or external hard drive. Although the PC probably shipped with a system image disc when it was new, the previous owner may not have passed on the original media to you if the hard drive quits, you won't be able to restore the system. Performing a complete system backup to separate media is your best insurance against any problems that may arise later. Now, you can go ahead and use the inherited system with confidence.

## Should You Defrag A Flash Drive?

You should never defrag a flash drive. Does that surprise you? First, a little about hard drives. The files you have stored on your hard drive are usually saved in several little pieces, often in groups of 512 bytes. Now, those chunks of data are usually never placed next to each other or even remotely close to each other. Therefore, your files are generally spread out all over your hard drive, which is why defragging is so important. Defragging simply helps speed up your system when you need to open a certain file.

That's why it's so vital that you defrag on a regular basis (at least once a month.) The whole defrag process is done through a read/write head that rearranges your files and places them back together for you. so your computer doesn't have to work as hard to find what you're looking for. On the other hand, flash drives do not have a read/write head, so if you were to defrag one, you wouldn't get any extra performance benefits from it whatsoever. Basically, without a read/write head, flash drives don't have to work any harder to find your files. Your files can be laid out in any order, and your flash drive will be will still be just as fast.

Another reason why you should never defrag a flash drive is because flash memory wears out over time. Basically, the more you write (saving files, etc.) to your flash drive, the shorter its lifespan will be. And since defragging is a huge write process, every time you do it, you're adding thousands of extra writes to your device that just aren't necessary. So, if you've been continuously defragging your flash drives, you should stop. If you want your flash drive to last you a long while, simply stop the defrags. You won't get any benefit from it and you'll just end up with a broken down flash drive for no reason at all. Go and defrag your hard drive instead!

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## Lurking Dangers of Larger Hard Drives

by Diane Fahlbusch, June 2010 The ICON Graphic, ICON User Group, Long Island, NY

We all know that one of the most essential components of our computer is the hard drive. Its is the home of your operating system, firmware, applications and those precious files you have collected over time. Faster processors, more RAM are useless if there is nothing to pass through them. Not so long ago, people were dancing around because they could get a 20GB drive on a notebook. Now, we scoff at a puny 160 GB drive on the same type of hardware. But is a larger hard drive better?

A larger hard drive will mean that you can have multiple operating systems and/or virtual machines. You have the space! Its a great way to explore new options. Just remember to back EVERYTHING up properly before you experiment! It also helps make intense graphic work (photo editing, video rendering, CAD design, etc) possible.

Now you can also save LOTS of files, and large ones! But when was the last time you opened some of these files? Do you

really need them, or are you just saving some of them because you can? With that 20 GB hard drive you did a regular cleaning because there wasn't enough space and you probably just got rid of some of those files. The ones you needed but rarely used were removed from the hard drive to some form of external storage. Here is where a larger drive is useful. (Then again, you can always build a RAID.) That ample storage can create a Scarlet OHara syndrome: I'll back up tomorrow. After all, tomorrow is another day!

You can load up on programs! But remember that every time you install an application on Windows machines you are making scattered changes to the registry. These may not be easy to remove. Sometimes they run something in the background, eating precious resources. Some set themselves to run on boot up, giving you time to watch the entire Thanksgiving Day Parade before your computer starts. Many of these applications also want to install helpful toolbars that take up space, add more registry entries and may be connecting or reporting to Internet sites you don't really want to go to. Some take over and set themselves as the default program when certain files are opened. You may have to go back and take control over your computer, instead of getting to what you wanted to do in the first place. This is fine, if you really believe that you will get use out of those programs. Consider its practicality, effectiveness, and ease of use for you before installing it.

So you have done some file and soul searching, and you want everything you have, and more. But beware of the lurking danger of that large drive the tendency NOT to back up your files. That ample storage capacity never forces you to make room for the new. Also, the greater the collection of information stored makes your anti-nasty-ware (my personal catch-all phrase for spyware, adware, malware) scans take much longer to run. Large files are more readily fragmented because the computer can sprawl them out. If you are regimented and do backups (Bravo!), you'll need storage capacity of matching or larger size. If that large drive gives up the ghost, the greater the replacement cost will be. And remember, all that information has to be transferred to another drive, provided you backed it up. Consider all the options before deciding what is right for you.

### Troubleshoot Your Digital Camera

If you've connected your camera to your computer, but your camera can't transfer the photos to the PC, first doublecheck the transfer procedures for your camera. Some cameras require only that you press the power button. Other cameras also require that you turn a mode dial to a USB Transfer mode. Sometimes data transfer problems occur because your camera's driver (software that tells your PC how to communicate with an external device) has become corrupted. You have a couple of options. You may download the most recent driver for your camera from the manufacturer's Web site, install it, restart your computer, and then try to transfer photos again.

Another option is to bypass the driver problem by using a

card reader to transfer photos to your PC. Make sure that you buy a card reader that supports the type of memory card that your camera uses. When you use a card reader, you're less likely to encounter the device conflicts that often occur when a camera's driver conflicts with another device's driver. (This is especially likely to happen if there's more than one digital camera in your home.)

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### Who Invented the "CD"?

Submitted by Consuelo Langholz

July 2010 Connections, Verde Valley Computer Club


What an amazing cavalcade of inventions we have seen in our lifetime. We have no sooner ceased to marvel at - or grasp one form of technological advance when the next innovation appears. Equally amazing has been the steady reduction of prices charged for these inventions in relation to the disposable income of the ordinary working person. Remember those first vinyl LP records we had to save for weeks to buy. James T. Russell who had displayed a flair for invention from the age of six when he made himself a remote-control battleship, earned a BA in Physics in 1953 at age 22 and joined GE where he was involved in some ground-breaking instrumental projects. By 1965 he was a senior scientist at the Battelle Memorial Institute Laboratory in Richland, Washington and had his sights set on audio research and improvements.

Russell wanted to find a way to improve the sound quality and prevent the wear and tear caused by the physical contact of the needle in the groove of his records. He worked toward an idea to use light to achieve this and used his knowledge of digital data recording as employed in punch card or magnetic tape devices. He therefore aimed to make a device that could read the binary code 0 and 1 with dark and light. He realised that if he could make the code compact enough he could store large quantities of music and huge amounts of data. The Massachusetts Institute of Technology writes; Russell succeeded in inventing the first digital-to-optical recording and playback system (patented in 1970). He had found a way to record onto a photosensitive platter in tiny "bits" of light and dark, each one micron in diameter; a laser read the binary patterns, and a computer converted the data into an electronic signal -- which it was then comparatively simple to convert into an audible or visible transmission.

Through the 1970s, Russell continued to refine the CD-ROM, adapting it to any form of data. By 1985, Russell had earned 26 patents for CD-ROM technology. He then founded his own consulting firm, where he has continued to create and patent improvements in optical storage systems, along with bar code scanners, liquid crystal shutters, and other industrial optical instruments.

*Compliments of the ASCA Australia Senior Computer Assoc.*

## Help Lines

SOFTWARE HELP	Advisor No.	HARDWARE HELP	Advisor No.	
Win 95/98/ME	2, 3, 4, 7	Reformat Hard Disk, FDISK	2, 4, 5	
Win 2K/NT/XP	2, 3, 7	Install Hard Drive, CD-ROM/RW	2, 4, 5	
MS Word	2, 7	Install Video Card		
MS Excel	4	Deleting Files, Wiping	6	
MS PowerPoint		Internet/Intranet	6, 7	
WordPerfect	1, 7	Audio Cards	4	
QuickBooks	8	MP3 Files, WMA Files, WAV Files	4	
Norton/Symantec AntiVirus	2, 3, 6, 7	Burning CD's	3, 5	
Norton System Works	2, 7	Partitioning Hard Drives	2	
CompuPic/CompuPic Pro	3, 7	Net Objects	7	
Winzip, WinRAR	6	Homesite	7	
JV Registry Cleaner	3	MS Access		
Outlook, Outlook Express	2			
Internet Explorer	2, 7			
Netscape Navigator	7			
Instant Messaging	2			
Installing Software after Reformatting	5			
Ccleaner	3			
Easy CD DA Extractor	3			
ADVISORS	PHONE		HOURS	
Fred Shelton [1]	(253) 752-0120		Variable	
Bob Henkel [2]	(253) 537-6732		8A-8P anyday	
Tom Stepanek [3]	(253) 922-7939	7-9P Mon-Fri		
Carl Tenning [4]	(206) 824-3843	6-9P Mon-Fri		
Oclad Wesley [5]	(253) 503-7833	6-9P		
Bob Thomson [6]	(253) 752-5582			
Ray Mills [7]	(360) 692-7568	6-9P Mon-Sat		
Sandee Gimblett [8]	(253) 952-3538			

### Tacoma Open Group for Microcomputers (TOG)

#### New Member Application/Existing Member Change of Address Form

For **Tacoma Open Group** annual membership, send form (if needed) & **\$25** to Bob Henkel., 10613 25th Avenue E., Tacoma, WA 98445.

Make checks payable to TOG

Please print or type.                      Date: \_\_\_\_\_                      Sponsored by: \_\_\_\_\_

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Home Phone: (\_\_\_\_) \_\_\_\_\_ Work phone: (\_\_\_\_) \_\_\_\_\_ E-Mail Address \_\_\_\_\_

**TACOMA MEETING**

When: **Mon 9 Aug 2010 -7:00 PM**  
Where: SE Tacoma Community Centre  
1614 99th Street E.  
Tacoma, Washington

From I-5 take Exit 127 (Hwy 512) to  
Portland Ave., north on Portland to 99th,  
left over tracks. Building is on south side.

Future Dates: 2nd Monday of Month

**TOG BOARD MEMBERS**

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**TOG Web Site:** <http://www.toggle.org>

**Deadline:** 15th of this month to appear  
in next months' issue, if room

**Corporate Sponsors:**

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[www.rm-a.com](http://www.rm-a.com)

**How To get To The Meeting**

For those readers still unfamiliar with how to find our meeting place we have reproduced the map showing its relationship in Tacoma to Portland Ave S. and the 512 Freeway. The 512 Freeway can be entered from I-5 in Tacoma on the west or from Hwy 167 in Puyallup on the east. Proceed to Portland off-ramp and turn north to 99th Street. Some folks in the middle of Tacoma may prefer to take Portland southbound to 99th. At 99th turn west over the tracks and there you are!



**Tacoma OPEN Group for Micros**  
**1808 Lenore Drive**  
**Tacoma, WA 98406-1920**

**Change Service Requested**

**PROGRAMS**

**This Month's Meeting**

This will be a regular monthly meeting. Meeting discussions are always interesting and the ever-popular Q&A (Question & Answer) period is sure to pique your interest, come up to your expectations and tickle your fancy. Come and share your own experiences, problems and discoveries.

**Program Presentation**

No program has been announced at press time. But as usual members will bring up problems and discoveries that they have made while using their computers and are sure to lead to interesting discussions. Come and bring your questions.